IOGP-IPIECA Health Committee statement on COVID-19 testing in the oil and gas industry

Introduction
As the COVID-19 pandemic evolves, the need for testing for the virus has presented significant challenges. Limited societal readiness, lack of nationally available testing infrastructure, and the validity of tests used are some of the principal hurdles to establishing an effective and consistent testing regime. The confusion is further amplified by the rapid development and deployment of new testing methods and protocols by many labs and manufacturers, with limited verification of their validity by national and international bodies or peer reviewed research.

This document aims to provide clarity on the current types of testing, the opportunities and limitations they provide and a method to assess if testing is appropriate for a specific operational site or organization. It will be reviewed on a monthly basis, or sooner if appropriate.

Quarantine
Quarantine is a critical tool to manage the risk of COVID-19 spread at a worksite. It separates a person or group of people reasonably believed to have been exposed to a communicable disease (COVID-19) but not yet symptomatic, from others who have not been so exposed, to prevent the possible spread of the communicable disease. Even with testing (limited) quarantine will remain needed.

Using quarantine personnel protocols for up to 14 days prior to departure to an offshore or remote worksite is accepted as good practice. Quarantine may be used as a control with or without testing to provide additional assurance that infected employees are not traveling to a remote worksite. Within the 14 day period, those who are infected will likely show clinical symptoms necessitating further testing and isolation. For those who remain asymptomatic, some will still have carried the virus; however, if they remain asymptomatic for the entire quarantine period, they are unlikely to be able to infect others after the quarantine ends.

PCR testing near the start of the quarantine period may be used to reduce the required quarantine time, whereas testing towards the end of the quarantine period may be used for increased assurance of personnel being virus free.
Types of tests

Two broad types of tests are available, with limitations as described:

1. **PCR tests** (laboratory based and point of care) are used to verify whether a suspected case carries the virus, even while asymptomatic, and has high specificity for COVID-19. The key limitations have been societal availability of tests, turnaround times (sometimes up to 7 days) and the sampling method. They rely on a nose/throat swab sample that, when done wrong, increases the number of false negative test results. False negatives are also more common in the first days after exposure to the virus when virus levels are still below the detection limit or not in the sample even when taken correctly (common in the first 48-72 hours after the virus enters the body and infection begins).

2. **Antigen/Antibody tests** are rapidly becoming available, are easy to use by non-health professionals, and scalable. They work by detecting structural proteins that are part of the virus (antigen test) or by detecting the body’s immune response to the virus (antibody test). Limitations of the antigen test are that they require higher levels of virus in the sample leading to false negative results with lower viral loads. Similar limitations apply to the antibody tests that also have high rates of false negative results due to the immune response only appearing days after someone already has high levels of virus in their body. Additionally, antibody tests are also unable to differentiate between active disease and the post disease stage. Due to variable test quality (specificity and sensitivity) and a lack of understanding of the extent of immunity (if any) to COVID-19 after having recovered from the illness makes plans to use these tests to identify those who are immune to COVID-19 premature.

Considerations for the oil and gas industry when deciding on the use of testing for managing the risk of infected parties going to (remote) locations/installations:

Any decision on how and when to use diagnostic tools to manage the COVID-19 risk in the workplace will need to be evaluated by a qualified professional who considers the type of test and its limitations, the date and technique of sample collection and the history of symptoms and contact with infected people. The below points summarize the high-level considerations in making these decisions.

**PCR tests:**

1. PCR tests have limited availability in some countries and should be directed to those who need it most. As such, prioritized testing specific for our industry becomes a moral issue when not strictly indicated on medical grounds. It therefore needs to be aligned with priorities set by local health authorities. In some areas, oil and gas workers are clearly identified as critical societal workers and will get priority. In others, this is not the case.

2. PCR testing can be used to shorten quarantine times prior to starting work from the regular 14 days to less than a week. It is most accurate when sampled by a health professional after 3 days of quarantine to assure that all societal exposures prior to quarantine are captured. When results come back negative from the lab, this single test can be used to end quarantine. Some quarantine time will remain necessary.
3. PCR testing is a valuable tool to test close contacts of confirmed cases in the workplace. This type of testing will need to be done in collaboration with local public health authorities.

4. People with COVID-19 symptoms should be tested as per national health guidance in the various countries.

**Antigen/Antibody tests**

1. These tests are rapidly evolving and - whilst accuracy is debatable - the current World Health Organization advice is that they are mainly suitable to help map population scale samples. The tests are not considered sufficiently accurate for screening workers or controlling outbreaks due to the high rate of false negatives and variable quality of the different brands of tests.

2. Antibody and antigen tests can be used for mapping of controlled larger populations that can include several companies in the same work area, where population samples of >5,000 can be achieved. The results may give insights into prevalence within a single company, location or population and may also provide valuable information for (inter)national health bodies.

**IOGP position**

1. IOGP views PCR testing as the most accurate testing tool currently available that can be considered for use in those situations where there is a legal requirement to do so, or where the availability of PCR testing is high enough to allow for testing of low risk groups without taking testing resources away from societies at large and when aligned with priorities set by national health authorities.

2. IOGP does not support general antigen/antibody testing for (remote) locations/installations unless for the specific purposes given above.

3. IOGP would like to see a “harmonized” approach to testing for COVID-19 across the oil and gas sector, but within constraints set at the national health authority levels. We will therefore continue to monitor the rapid development of testing methods/protocols and offer updates to this guidance as and when needed.

**Note:**

This document has been prepared using collective insights from the IOGP/IPIECA Health Committee, with due regard to the positions and information from various international bodies like WHO/CDC and others.

The need to urgently address issues in the rapidly moving COVID-19 situation means it has not gone through the usual approval/review cycles at IOGP, and will be under constant review as the situation evolves.

Updated 11 May to include IPIECA logo.
About IOGP

The International Association of Oil & Gas Producers (IOGP) is the voice of the global upstream industry. Oil and gas continue to provide a significant proportion of the world’s energy to meet growing demands for heat, light and transport.

Our Members produce 40% of the world’s oil and gas. They operate in all producing regions: the Americas, Africa, Europe, the Middle East, the Caspian, Asia and Australia.

We serve industry regulators as a global partner for improving safety, environment and social performance. And also act as a unique global forum in which our Members identify and share knowledge and good practices to achieve improvements in every aspect of health, safety, the environment, security and social responsibility.

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